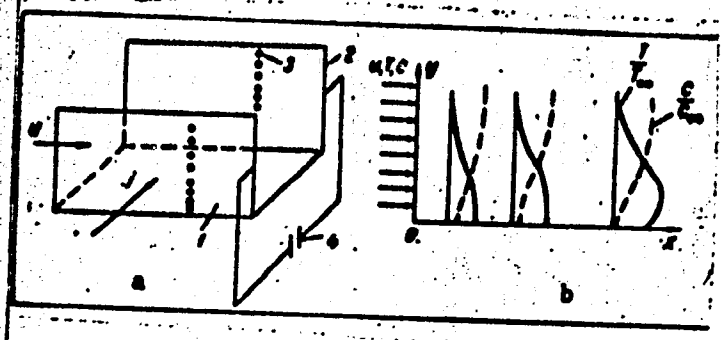

Fig. 1. Simulation of ignition during flow along a heated surface

a - Diagram of model: 1 - plate; 2 - electrodes; 3 - measuring electrodes; 4 - feed sources

b - Temperature distribution and concentration in the boundary layer during flow of a reacting gas along a heated surface.

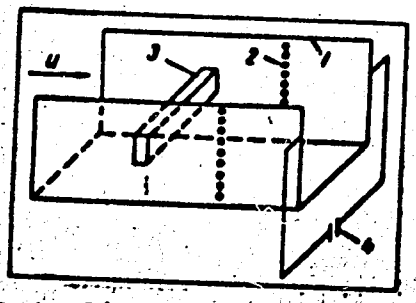

Fig. 2. Diagram of simulation of flame stabilization with a bluff body

1 - Electrodes; 2 - measuring electrodes; 3 - bluff body; 4 - feed source.

ACC NR: AP6036699

plasma as a resistance thermometer it is also possible to simulate mixing processes in compressible gases. Preliminary experiments showed that the difficulties associated with distortions due to the voltage drop near the electrodes can be eliminated. Orig. art. has: 3 figures and 1 table.

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 004/ ATD PRESS: 5106

Card 3/3

L 18058-66 EWT(l)/EWP(m)/EWT(m)/EWA(d)/T/EWA(l) WW/JW/JWD/WE/GS
ACC NR: AT6006925 SOURCE CODE: UR/0000/65/000/000/0392/0398

AUTHOR: Yershin, Sh. A.; Yarin, L. P.

ORG: Power Institute, Academy of Sciences SSSR (Institut energetiki Akademii nauk SSSR)

TITLE: Transfer processes in turbulent jets in the presence of high-intensity chemical reactions

SOURCE: Teplo- i massoperenos. t. II: Teplo- i massoperenos pri vzaimodeystvii tel s potokami zhidkostey i gazov (Heat and mass transfer. v. 2: Heat and mass transfer in the interaction of bodies with liquid and gas flows). Minsk, Nauka i tekhnika, 1965, 392-398

TOPIC TAGS: heat transfer, mass transfer, gas combustion, turbulent jet

ABSTRACT: Results are presented of theoretical and experimental studies of the heat and mass transfer in burning turbulent gas jets. A method is proposed for calculating the turbulent Prandtl number of burning, non-mixed gases in turbulent jets. It is based on the equivalent problem heat conduction theory (which describes the continuous deformation of the entire jet flow field) and on the linearization of boundary layer equations and their reduction to nonsteady-state heat conduction (diffusion) equations. The aerodynamics of a nonisothermal turbulent jet which develops in a concurrent flow and the aerodynamics of submerged and concurrent flames were studied experimentally. The previously postulated aerodynamic theory of flames is based on

Card 1/2

L 18058-66

ACC NR: AT6006925

0

the assumption that transfer processes in a turbulent jet and in a flame have a common mechanism. This assumption is now confirmed by the experimental data obtained. Analysis of the experimental data on diffusion flames showed that for the self-modeling region of the flow, the turbulent Prandtl number is constant and is equal to 0.75—0.8. This permits the calculation of the aerodynamics of a burning turbulent jet using the dynamic problem data. Orig. art. has 4 figures, 1 table, and 4 formulas. [PS]

SUB CODE: 21/ SUBM DATE: 09Nov65/ ORIG REF: 011/ OTH REF: 004/ ATD PRESS: 4212

Card 2/2 Sml

YERSHIN, Sh.A.; YARIN, L.P.

Diffusion flames. Probl. teploenerg. i prikl. teplofiz. no.1:101-139 '64.

Thermal conditions of a turbulent gas flame. Ibid.:140-147 (MIRA 18:8)

YERSHIN, Sh.A. (Alma-Ata); YARIN, L.P. (Alma-Ata)

Calculation of diffusive combustion in the turbulent flow of a compressible gas. Naush.-tekh. probl. gor. i vzryva no.1 52-58 '65. (MIRA 18:9)

L 4984-66 EPA/EWT(l)/EWT(m)/EPA(s)-2/EWT(m)/EPF(c)/T/FCS(k)/EWA(c) [illegible]

ACC NR: AP5026072 SOURCE CODE: UR/0405/65/000/002/0101/0105

AUTHOR: Yershin, Sh. A. (Alma-Ata); Yarin, L. P. (Alma-Ata)

ORG: none

TITLE: Diffusional combustion in the laminar boundary layer

SOURCE: Nauchno-tekhnicheskiye problemy goreniya i vzryva, no. 2, 1965, 101-105

TOPIC TAGS: combustion, diffusion flame, diffusional combustion

ABSTRACT: An analysis was made of the combustion process taking place in the laminar boundary layer formed by concurrent, plane-parallel, oxidizer and fuel jets flowing at different velocities. Solution of the system of equations yielded temperature, density, velocity, and momentum profiles in the flame zone. The momentum profile had a pronounced minimum which is attributed to the presence of the flame front. In an isobaric flow, the flame front causes a sharp change in the density field, while the velocity field changes only slightly. A similar minimum may also be expected to exist in a turbulent boundary layer. Orig. art. has: 9 formulas and 3 figures. [PV]

SUB CODE: FP, ME/SUBM DATE: 23Nov64/ ORIG REF: 004/ OTH REF: 001/ ATD PRESS: 4/13/

Card 1/1 UDC: 536.46

0901 0272

YARIN, L.P.; ZENIN, L.S.

Method for determining lightness and falling rate. Dokl.Akad.sel'khoz. 22 no.9:44-48 '57. (MIRA 10:9)

1. Kazakhskiy nauchno-issledovatel'skiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva. Predstavlena akademikom V.A. Zheligovskim.

(Grain--Cleaning)

YARIN, S.I.

Momentum distribution of the quantity of motion in statistical atomic models. Zhur. eksp i teor. fiz. 28 no.4:498-501 Ap '55. (MLRA 8:6)

1. Moskovskiy gosudarstvennyy universitet.
(Nuclear physics)

89763

S/169/61/000/002/016/039
A005/A001

3.1810
9.9000 (also 1036)

Translation from: Referativnyy zhurnal, Geofizika, 1961, No. 2, p. 32, # 2G238

AUTHOR: Yarin, V. I.

TITLE: Radar Reflections From Aurora and Their Connection With Magnetic Disturbances

PERIODICAL: V sb.: "Spektr. elektrofotometr. i radiolokats. issled. polyarn. siyaniy i svecheniya nochnogo neba". No. 2-3. Moscow, AN SSSR, 1960, pp. 37-41 (English summary)

TEXT: Results of observations of reflections from aurora at the frequency of 73 Mc are presented, which were conducted at Yakutsk from May to December 1958 according to the program of IGY. The recording of the reflections was conducted with intervals of 15 minutes, when reflections or visible forms of aurora did not take place, and continuously when the latter existed. The observation data showed that about 99% of the reflections observed have a diffuse form, and about 1% are of discrete form. Reflections of the "running" type were observed not one. The diurnal course of probability of reflections appearance has two maxima: one at 3-5 o'clock, the other at 17-19 o'clock of local time. The daily maximum is

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S/169/61/000/002/016/039
A005/A001

Radar Reflections From Aurora and Their Connection With Magnetic Disturbances

intensely developed in summer time, and almost entirely absent at equinox and in winter. In contrast to the diurnal probability distribution of appearance of weak and moderate signals, which has two maxima, the distribution of intense reflections has one maximum in morning. The analysis of the spatial distribution of reflections shows that the latter chiefly arrive from the northern quadrant with the tendency of concentrating somewhat to North-East. Two maxima are observed in the distribution by inclined distances: the main maximum at 800-900 km, and the second one at 450-550 km, the second maximum appears only during the coronal form of the aurora. The study of the correlation between the appearance of reflections from aurora and the magnetic activity showed that, apparently, a sufficiently clear mutual correlation exists between them, which manifests itself in the similarity of both diurnal and seasonal regularities. The comparison of the diurnal observations of radioreflections and magnetic activity shows that the appearance of the evening maximum of reflections in Yakutsk was caused by the development of the evening magnetic disturbance (at 16-17 o'clock of local time). The main number of events of appearance of reflections relates to the negative deviations of the horizontal component of the magnetic field (H) from the normal

89763
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A005/A001

Radar Reflections From Aurora and Their Connection With Magnetic Disturbances

value (82% of the total number of events). The comparison of intensities of the received signals (according to the signal-to-noise ratio) for the various disturbances shows that the average intensity of the signals depends on the kind of disturbance (positive or negative). During negative disturbances, the level of the received signals changes strongly, and the reflections proceed usually by "bursts".

L. Yerasova

Translator's note: This is the full translation of the ogirinal Russian abstract.

Card 3/3

34148
S/169/62/000/001/076/083
D228/D302

3.5120

AUTHOR: Yarin, V. I.

TITLE: OH emission according to observations at Yakutsk

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 1, 1962, 20, abstract 1G147 (V sb. Spektr., elektrofotometr. i radiolokats. issled. polyarn. siyaniy i svecheniya nochn. neba, no. 5, M., AN SSSR, 1961, 10-17)

TEXT: Auroral and airglow observations, made near Yakutsk in accordance with the IGY program, are described. Spectra of the airglow in the spectral regions 4200 - 5600 and 5500 - 6700 Å were obtained by means of a СП-48 (SP-48) spectrograph. The OH bands (5.0), (6.0), (6.1), (7.1), (8.2), (9.2), and (9.3) are clearly visible on these spectra in addition to the main emissions ([OI]5577, [OI]6300 and 6364, Na 5890 Å); the bands of the Hertzberg molecule O_1 can also be observed. Application of photocontact tubes for photography

Card 1/4

OH emission according ...

in the infrared region allowed the spectra of airglow in the 8500 - 10600 Å region, where the OH bands (7.3), (8.4), 3.0), (9.5), and (4.1) were observed, to be obtained on a CII-50 (SP-50) spectrograph. The spectrographs were pointed northwards at an angle of 30° to the horizontal. The survey was conducted with exposures of 1 - 4 hrs. Absolute OH-band intensities (in rayleighs) for an OH rotary temperature of about 250°K were obtained after processing the spectrograms. The rotary temperature was determined from the OH bands (8.2), (5.0), (9.3), (6.1), (8.4), and (4.1) by using the branches P, p, Q, and R. Analysis of the curve of the OH-band intensity (9.3) dependence on the rotary temperature shows that the data corresponding to rotary temperatures of above 250°K testify to the relationship of the emission intensity of the OH bands to the temperature. The data corresponding to rotary temperatures of below 250°K do not most probably conform to such a relationship. If the hydroxyl emission, whose rotary temperature is above 250°K, arises as a result of the ozone-hydrogen reaction, then the concentration obtained through this reaction is determined by the expression:

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OH emission according ...

$n = k[O_3][H]$; where n is the number of pairs of finite products formed in 1 cm^3/sec, $[O_3]$ and $[H]$ are the concentrations of ozone molecules and hydrogen atoms in 1 cm^3, and k is the coefficient of the reaction velocity. The OH-band intensity is proportional to n. This reaction may, therefore, explain the the dependence of the intensity of the OH bands on their rotary temperature. The additional change of the OH bands is also caused by the variation in the concentration of O_3 and H. The absence of the temperature relationship of the OH-emission intensity for rotary temperatures of below 500°K indicates another mechanism for the formation of hydroxyl radiation. One possible mechanism may be the oxygen-hydrogen reaction, according to which the intensity of OH-band emission is weakly related to the rotary temperature. An attempt was made to determine from the processed data seasonal variations in the intensity and rotary temperature of OH. Comparison of the rotary temperature of OH with the temperature of the near-surface atmospheric layer at Yakutsk shows that the seasonal course of the mean values of these quantities has an opposite variational ten-

Card 3/4

34148
S/169/62/000/001/076/083
D228/D302

OH emission according ...

dency. The obtained data also allow small variations in the OH rotary temperature to be traced in the course of one night. [Abstractor's note: Complete translation.]

Card 4/4

S/169/62/000/001/078/083
D228/D302

3,5120

AUTHORS: Shefov, N. N. and Yarin, V. I.

TITLE: The dependence of the rotary temperature of OH on the latitude

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 1, 1962, 22, abstract 1G157 (V sb. Spektr., elektrofotometr. i radiolokats. issled. polyarn. siyaniy i svecheniya nochn. neba, no. 5, M., AN SSSR, 1961, 25-28)

TEXT: A table is given which contains data on the rotary temperature of OH bands in the airglow spectrum obtained by different investigations. The coordinates of the observation posts, the sighting direction, the period of observations, the spectral region, the mean temperature value, the divergence from the average value, and the absolute error are presented in the table. The spectral region refers only to those bands which were used for determining the rotary temperature. Analysis of the tabulated data indicates the obvious tendency for the temperature to grow with the

V/B

Card 1/2

The dependence of ...

increase of latitude in the northern hemisphere. For the southern hemisphere there is as yet only one determination of the rotary temperature of OH bands. The processed data about OH emission include several simultaneous observations at Zvenigorod and Yakutsk. Intensities of the OH band (9.3) and rotary temperatures for purposes of comparison are inserted in the table. The average values of the intensity and rotary temperature according to several exposures at night are cited for Yakutsk. 19 references. [Abstractor's note: Complete translation.]

Card 2/2

31149
S/169/62/000/001/077/083
D228/D302

3,1610 (1041)

AUTHOR: Yarin, V. I.

TITLE: Diurnal and seasonal variations of radioreflections from auroras

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 1, 1962, 20-21, abstract 1G148 (V sb. Spektr., elektrofotometr. i radiolokats. issled. polyarn. siyaniy i svecheniya nochn. neba, no. 5, M., AN SSSR, 1961, 56-59)

TEXT: Radiolocation observations of auroras near Yakutsk ($\Phi = 51^{\circ}$, $\Lambda = 193.8^{\circ}$) in accordance with the IGY program are described. A frequency of 72 mc/s was used in the investigations. The results of investigations on the 72-mc/s frequency, obtained for the period from May 1958 to April 1960, are given. The diurnal variation of the frequency of the appearance of reflections from auroras was obtained summarily for the period of observations. The frequency of the appearance of reflected signals was determined by calculating the quantity for a time interval equal to 15 min. Then the data

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Diurnal and seasonal ...

for each hour were summed up for all the days of each month of observations. Two maxima -- one in the evening at 17 - 22 hrs, the other in the morning at 1 - 4 hrs -- are observed in the diurnal variation. The evening reflections are related to quiet auroral forms and are accompanied by positive magnetic disturbances. They appear at ranges of 900 - 1200 km with a small amplitude and then, according to the measure of the increase in the intensity of the signals received, approximate to ranges of 500 - 700 km. A reverse phenomenon is sometimes observed as the intensity of the reflected signals decreases. This shift in the range of the signals received testifies to the movement of the reflecting regions in a north-south direction . The southwards movement is, thereby, accompanied by the increase in the intensity of the reflected signals, but the northwards movement is accompanied by their decrease. The morning reflections are related to mobile auroral forms and are accompanied by negative magnetic disturbances. At this time the movement of the reflecting regions is indefinite. The smaller ranges of the reflecting regions, however, correspond to very intense reflections.

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Diurnal and seasonal ...

The reflections in the morning hours often follow "flares", i.e. transitory increases are observed in the intensity of the signals received. The intensity thereby increases ten-fold. The reduction in the level of the signal takes place more slowly than its increase. The reflections sometimes totally disappear during bright radial forms of auroras after the signal's sudden amplification. This abrupt disappearance of the signal may, evidently, be explained by the strengthened absorption of radiowaves during radiant auroral forms at the expense of roentgen radiation. The diurnal variations of the evening and morning reflections differ for different seasons. The seasonal variations in the frequency of the appearance of reflections from auroras indicate that the activity of the reflections has four clearly expressed maxima belonging to the periods of the equinox and the solstice. [Abstractor's note: Complete translation.]

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41180
S/169/62/000/009/107/120
D228/D307

3,5120

AUTHOR: Yarin, V. I.

TITLE: Dependence of the OH-band intensity on the rotation temperature

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 9, 1962, 14, abstract 9G121 (In collection: Polyarn. siyaniya i svecheniye nochn. neba, no. 8, M., AN SSSR, 1962, 9-10 (summary in Eng.))

TEXT: The relation between the total intensity OH (9, 3) and its rotational temperature, which was revealed in spectral observation materials obtained in the IGY period at Yakutsk, was checked from the data of 1960-1961. The relations of the intensities of bands with different initial oscillatory levels to their corresponding rotational temperatures are presented. The relation, previously detected (RZhGeofiz, 1962, 1G147) for the OH-molecule band (9, 3), remains for the 1960-1961 data and becomes less distinct for bands with low oscillatory levels. There is a tendency for the rotatio-

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S/169/62/000/009/107/120
D228/D307

nal temperature of OH bands to decrease as the initial oscillatory level falls. This rotational temperature difference for bands with v' = 3 and 9 reaches several score degrees. [Abstracter's note: Complete translation.]

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S/169/63/000/003/008/042
D263/D307

AUTHOR: Yarin, V.I

TITLE: The [NI] λ 5200 Å emission according to observations at Yakutsk

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 3, 1963, 31, abstract 3A179 (In collection: Polyarn. siyaniye i svecheniye nochn. neba. no. 9, M., AN SSSR, 1962, 53-54 (Eng. summary))

TEXT: The author reports results of observations of nocturnal sky radiation and of polar glows, carried out at Yakutsk in January 1960 by means of the CП-48 (SP-48) spectrograph pointed northwards at 30° to the horizon. In 11 cases out of 23 the 5200 Å [NI] emission was observed when the 3914 Å, 4278 Å, and 4709 Å $1NGil_2^+$ emissions characteristic of polar glows were absent and the geomagnetic field was undisturbed. The minimum recorded intensity of the 5200 Å [NI] emission was ~ 3 rayleighs. A curve is given of the variation of the intensity of the 5200 Å [NI] emission throughout the

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The [NI] λ 5200A emission ...

night. Intensity of the 5200A [NI] emission is compared with r.m.s. amplitudes of the horizontal component of the terrestrial magnetic field (data from the magnetic observatory at Yakutsk), and with the electron density of the layer n_e^- (data from the ionospheric station at Yakutsk). No clear connection was found between the intensity of the 5200A [NI] emission and the intensities of Gertsber's OH and O_2 bands.

[Abstracter's note: Complete translation]

Card 2/2

KUZ'MIN, A.I.; SHAFER, G.V.; SHAFER, Yu.G.; KRASIL'NIKOV, D.D.;
KRYMSKIY, G.F.; MAMRUKOV, A.P.; SMIRNOV, N.S.; YARIN, V.I.

July 1959 according to data of comprehensive geophysical observations at Yakutsk. Trudy IAFAN SSSR. Ser. fiz. no.4:142-156 '62. (MIRA 15:12)

(Magnetic storms)
(Cosmic rays)

YARIN, V. N.

Yarin, V. N. "Tables for the designing of extracentrally compressed reinforced concrete members," Sbornik trudov (Kiyevsk. inzh.-stroit. in-t), Issue 8, 1948, p. 245-63

SO: U-3850, 16 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949).

YARIN, V.N., zasluzhennyy deyatel' nauki i tekhniki, professor; ULITSKIY, I.I., kandidat tekhnicheskikh nauk.

Thin-walled construction of reinforced concrete aqueduct bridges. Gidr. stroi. 22 no.5:21-24 My '53. (MLRA 6:6)
(Canal aqueducts)

YARIN, V.N.

YARIN, V.N., professor, zasluzhennyy deyatel' nauki i tekhniki USSR;
RIVKIN, S.A., kandidat tekhnicheskikh nauk.

Joints for prefabricated reinforced concrete columns. Stroi.prom. 32 no.8:47 Ag '54. (MLRA 7:8)
(Columns, Concrete)

YARIN, V., professor, zasluzhennyy deyatel' nauki i tekhniki; ULITSKIY, I., kandidat tekhnicheskikh nauk; RIVKIN, S., kandidat tekhnicheskikh nauk.

Precast reinforced concrete large panel roofs for agricultural buildings. Sel'.stroi.10 no.2:15-17 F '55. (MLRA 8:4)
(Farm buildings) (Roofs, Concrete)

YARIN, V.N., zasluzhennyy deyatel' nauki i tekhniki USSR, professor;
RIVKIN, S.A., kandidat tekhnicheskikh nauk.

Design of precast reinforced concrete frame elements for apartment houses. Nov. v stroi. tekh. no.7:5-13 '55. (MLRA 9:11)

1. Kiyevskiy inzhenerno-stroitel'nyy institut.
(Precast concrete construction)

YARIN, V.N., professor, zasluzhennyy deyatel' nauki i tekhniki Ukrainskoy SSR; ULITSKIY, I.I., kandidat tekhnicheskikh nauk, dotsent; LIBERMAN, A.D., kandidat tekhnicheskikh nauk; RUSINOV, I.A., kandidat tekhnicheskikh nauk.

Experimental investigation of reinforced-concrete sloped double-camber panels. Nov. v stroi. tekh. no.7:37-69 '55. (MLRA 9:11)

1. Kiyevskiy inzhenerno-stroitel'nyy institut i UkrNIIS MG i SS USSR.

(Precast concrete construction)

ROKHLIN, Il'ya Aleksandrovich; kandidat tekhnicheskikh nauk; YARIN, V.N., professor, zasluzhennyy deyatel' nauki i tekhniki, redaktor; KNYAZEVSKIY, P., redaktor; ZELENKOVA, Ye., tekhnicheskiy redaktor

[Calculations for ceramic construction elements] Raschet keramicheskikh konstruktsii. Pod red. V.N.Yarina, Kiev, Gos. izd-vo lit-ry po stroit. i arkhitekture USSR, 1956. 288 p. (MLRA 9:12)
(Ceramic materials)

SOV/97-58-12-3/13

AUTHORS: Yarin, V.N., Member of ASiA Ukrainian SSR, Professor; Rivkin, S.A., Candidate of Technical Sciences; and Korshunov, D.A., Pereyaslavtsev, N.A. and Kisiliyer, M.I., Engineers.

TITLE: Use of Precast Large-Block Reinforced Concrete Foundations Under Columns of the Main Building of Simferopol' GRES (Opyt primeneniya sbornykh krupnoblochnykh zhelezobetonnykh fundamentov pod kolonny glavnogo korpusa Simferopol'skoy GRES).

PERIODICAL: Beton i Zhelezobeton, 1958, Nr.12, pp.449-453 (USSR)

ABSTRACT: Engineers N.A. Pereyaslavtsev and M.I. Kisilier, of the Kiyev Branch of Teploelektroproyekt, designed a new type of precast large-block reinforced concrete foundation as illustrated in Fig.1. These new foundation slabs were tested by the Kiyev Structural Engineering Institute (Kiyevskiy)inzhenerno-stroitel'nyy institut), Kiyev Branch of Teploelektroproyekt and by Yuzhenergostroy (Engineers I.F. Pishchik, Yu.A. Vol'ters and S.K. Przhiyalgovskiy). The foundation blocks were

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designed to carry 500 t positioned centrally; they measure 5.2 x 3.5 m and weigh 15.7 t. The weight of the saddle is 10.6 t. Concrete of mark 300 was used, with reinforcement from hot rolled steel of standard profile mark 25G2S. Fig.2 illustrates the points which were taken into account in testing. The foundations were tested by a load gradually increasing by 0.5-1 kg/cm^2, up to the breaking limit. Table 1 gives values obtained during testing: Fig. 3 illustrates the character of cracks which appeared, and Fig.4 shows the deformation of the foundation slab. Fig. 5 illustrates the method on which the calculation of the foundation is based: formula for the bending moment of the loaded foundation is presented and explained. The calculation of the foundation for shear stresses is carried out according to NiTU 123-55. The following recommendations are given for the construction of precast foundations: the concrete should not be of lower mark than 200; to save steel the size of the saddle should be bigger; account should be taken of the shear stresses, and the necessity for stirrups and

Use of Precast Large-Block Reinforced Concrete Foundations Under Columns of the Main Building of Simferopol' GRES.

bends obviated; the recess in the foundation housing the beam should have walls not less than 300 mm thick; the reinforcement of the slab should be carried through the whole of its length, as should also the reinforcement of the saddle. The results of the above tests were taken into account in designing the precast large-block reinforced concrete construction under the columns of the Simferopol' GRES (see Fig.6). Assembly was carried out by the Donbassenergostroy of the Ministry of Building of the Ukrainian SSR (Ministerstvo stroitel'stva USSR). The foundations were produced by the "Stroydetal'" factory. Assembly was carried out by cranes BK-403 and BK-405, of 40 t capacity. Assembly of 70 foundation slabs with a total volume of 1066 m^3 of reinforced concrete was carried out in 15 days. Table 2 gives values indicating labour requirements. There are 6 figures and 2 tables.

SMOLINA, I., inzhener; YARINA, G.

Using large brick blocks. Stroitel' 2 no.7:10-12 Jl '56.
(MIRA 10:1)

1. Instrukter Ukrainskogo filiala instituta Orgstroy Minmetallurgkhimstroya SSSR. (for Yarina).
(Building blocks)

YARINA, G.

My suggestions. Stroitel' no.7:10 Jl '58. (MIRA 11:9)
(Precast concrete construction)

YARINA, L.

Juice of the seabuckthorn berry. Nauka i zhizn' 22 no.1:28 Ja'55. (MLRA 8:2)
(Buckthorn)

L 29094-66 EWT(1) RO

ACC NR: AP6019395 SOURCE CODE: UR/0025/65/000/004/0078/0078

AUTHOR: Yarina, L.

18
B

ORG: none

TITLE: New drugs

SOURCE: Nauka i zhizn', no. 4, 1965, 78

TOPIC TAGS: drug treatment, human ailment, myology

b

ABSTRACT: This brief article describes Vipraxin, derived from viper venom. It is injected subcutaneously for diseases of the joints, muscles, polyarthritis, and myositis. It is indicated only for cases in which the disease is not accompanied by elevated temperature. It is contraindicated for liver disease and in persons with a tendency toward angiospasm.

Vipraxin is generally well tolerated by patients. Injection of the substance may be accompanied by a transient burning sensation. It diminishes pain and joint stiffness. It has a marked analgesic effect in myositis.

Although vipraxin may exacerbate the disease, the injections are continued but at longer intervals. The exacerbation quickly subsides. [JPRS]

SUB CODE: 06 / SUBM DATE: none

Card 1/1 CC

YARINA, L.N., vrach.

Beeswax. Zdorov'e 2 no.1:29 Ja '56. (MLRA 9:3)
(BEESWAX)

YARINA, L. N.

YEFIMOVA, A.A., kand.med.nauk; MAKAROV, N.M.; VASIL'YEV, A.V., vrach; YARINA, L.N., vrach; POLIKARPOVA, M.G., vrach-kosmetolog; POPOV, I.P., kand. biol.nauk; SUBBOTINA, G.I., vrach

Advice from "Zdorov'e". Zdorov'e 3 no.12:28-29 D '57. (MIRA 11:1)
(HYGIENE)

YARINA, O.A.

Method for fast biochemical identification of Escherichia coli.
Nauch. soob. IAFAN SSSR no.5:117-120 '61. (MIRA 14:12)
(ESCHERICHIA COLI) (BACTERIOLOGY--TECHNIQUE)

MEYEROV, M.V.; SEMENOV, I.B.; YARINA, V.Z. (Moskva).

Design of a contact frequency converter for automatic control of induction motors [with summary in English]. Avtom. i telem. 20 no.1:45-53 Ja '59. (MIRA 12:1)
(Frequency changers) (Electric motors, Induction)

S/024/60/000/01/015/028
E194/E355

AUTHORS: Petelin, D.P. and Yarina, V.Z. (Moscow)

TITLE: A Synchronous Motor with Valve-contact Field Control

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1960, Nr 1, pp 126-130 (USSR)

ABSTRACT: Synchronous motor drives usually include two machines, the synchronous motor proper and the exciter. The use of a machine as exciter makes the set expensive, impairs reliability and makes automatic control of the field more difficult. Recently, considerable attention has been paid to synchronous motors without machine exciters, particularly the small motors where the exciter is commensurate with the main machine in size and cost. An article by Semenov and Yarina published in Avtomatika i telemekhanika, 1959, Nr 8, described a new system of exciting a synchronous motor by a contact-breaker and rectifier combination incorporating semiconductor diodes. In the present state of rectifier development this type of excitation may be used on synchronous motors of up to 100 kW; it adjusts the motor field according to the load on the shaft.

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The contact-breaker and rectifier combination work on the following principle: a semiconductor diode is in series with synchronously-operated contacts and behaves as a controlled rectifier, the contacts fulfilling the role of the control grid. The rectified voltage is controlled by displacing the instant of closure of the contacts. They are normally closed and are opened at an instant when the rectifier is not carrying current so that the contact system is very reliable. It may comprise a synchronously rotating ring, with conducting and insulating segments and a stationary brush. This construction was used for automatic field control of synchronous machines. The length of the respective segments depends on the rectification circuit and the synchronous speed of the machine. Thus, for a three-phase full-wave bridge rectification circuit and a motor speed of 3 000 rpm, the circuit had two rings and a contact arrangement as illustrated in Figure 1. With the same circuit and a speed of 1 500 rpm, the multi-segment ring

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shown in Figure 2 was used. In three-phase bridge rectification the commutation angle may be determined from the expression (1).

As will be seen from Figure 1, the field winding of the synchronous machine is supplied from two sources, an uncontrolled ar' a controlled rectifier. Whilst the motor is being started and until it is synchronised the field winding is supplied from the uncontrolled rectifier. When the machine reaches synchronous speed the brushes of the controlled rectifier are so positioned that an increase in the load on the shaft and so in the load angle, increases the voltage on the motor field winding. The controlled field supply is then connected and the uncontrolled rectifier disconnected. The voltage of the uncontrolled rectifier is selected according to the no-load characteristics of the motor. The conditions of stable operation are given by Eq (2), the solution of which gives the upper limit of synchronous motor field current.

In a mixed field synchronous motor whose field is controlled according to the stator current, the control does not

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directly correspond to changes in load on the shaft, whereas in the present scheme the field is varied directly as the load angle. This offers the possibility of improved field control of synchronous motors driving variable loads. Starting of the motor is then described. The controlled and the uncontrolled rectifiers may both be supplied from one tapped stepdown transformer. An analysis is then made of the operating conditions of a cylindrical-rotor synchronous motor with field control of the kind described. The mean value of rectified current depends on the control angle and is determined by Formula (3). The law of field control as a function of load angle may be expressed in relative units in the form of expression (4) or expression (5). This law of field control is then easily expressed as a function of the load on a shaft and Eq (7) characterises the law of motor field control as a function of load when using the contact-breaker and rectifier combination. Eq (9) may be used to calculate the reactive power of the motor for a given shaft output and to determine the power factor at different

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loads. It will be seen that with this method of field control the overload capacity of the motor increases with increase in the load on the shaft, thus ensuring a reserve of static stability.

A field controller of this type was built in the laboratory and brief details are given. Experimental investigations confirm the correctness of the above analyses. The operating characteristics of a synchronous motor without field control and with the new field control are plotted in Figure 3. It will be seen that the new type of excitation makes better use of the motor torque and ensures stable operation during sudden changes of load. The scheme is simple and reliable. There are 3 figures and 3 Soviet references.

SUBMITTED: November 25, 1959

Card 5/5

SOKIAKOV, A.I.; YARINOVA, T.I.

Powder pattern of rhenium heptoxide. Trudy NIUIF no.208:142-145 '65. (MIRA 18:11)

YARINOVSKAYA, Aelita Leonidovna; SABASHNIKOVA, Ye.S., red.

[Lenses for motion-picture cameras and the quality of the image] Kinofotoob"ektivy i kachestvo izobrazheniia. Moskva, Iskusstvo, 1965. 199 p. (MIRA 18:7)

YARINOVSKAYA, A.L.

Assessing the quality of cinematographic lenses by the criterion sharpness; author's abstract. Usp.nauch.fot. 10:42-43 '64.
(MIRA 17:10)

BATYR, Dmitriy Grigor'yevich, kand. khim. nauk; ABLOV, A.V., akad., red.; YARINKOVSKIY, B.I., red.; SHEKHTER, D.A., tekhn.red.

[Russian-Moldavian chemical dictionary] Russko-moldavskii khimicheskii slovar'. Kishinev, Gos.izd-vo "Kartia moldoveniaske," 1963. 353 p. (MIRA 16:12)
(Chemistry--Dictionaries)
(Russian language--Dictionaries--Moldavian)

YARINOVSKAYA, A., inzh.

Photographic objective and its characteristics. Sov. foto 19 no.2:30-32 F '59. (MIRA 12:3)
(Photographic optics)

YARINOVSKAYA, A.

What is a teleobjective? Sov. foto 19 no.6:39 Je '59.
(MIRA 12:9)
(Telephotography)

ROMANOV, I.; YARINOVSKAYA, A.

Optics of portrait photography. Sov.foto 19 no.7:41-46 Jl '59. (MIRA 12:11)

(Photographic optics)
(Photography--Portraits)

KRUGLYAKOV, I.O., kand. med. nauk; YARIS, G.F.

X-ray examination of the motor function of the gallbladder in its flexions and constrictions. Sov. med. 28 no.10:80-83 O '65. (MIRA 18:11)

1. Kafedra rentgenologii i radiologii (zav. prof. L.D. Lindenbraten) I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.

YARISH, G.I.

Calculating yarn warping for machines with a Sh-608 bobbin holder. Tekst. prom. 23 no.9:62-65 S '63. (MIRA 16:10)

1. Starshiy master Kamyshinskogo khlopchatobumazhnogo kombinata. (Warping machines)

ACC NR: AT6028969 SOURCE CODE: UR/0000/65/000/000/0084/0090

AUTHOR: Boyko, A. I.; Yarish, M. S.

ORG: Western Ukrainian Geophysical Prospecting Expedition of the Urgeofizrazvedka Trust (Zapadno-Ukrainskaya geofizicheskaya razvedochnaya ekspeditsiya tresta Ukrgeofizrazvedka)

TITLE: Application of the central ray method on the southwestern border of the Russian platform

SOURCE: Vsesoyuznyy seminar po novoy metodike seysmorazvedki. Seysmorazvedka s primeneniyem gruppirovaniya vzryvov na dlinnykh bazakh i sposoba tsentral'nykh luchey (Seismic prospecting using the grouping of shots on long bases and the method of central rays); trudy seminara. Moscow, Izd-vo Nedra, 1965, 84-90

TOPIC TAGS: seismic prospecting, seismic wave, seismography, seismology, underground explosion

ABSTRACT: A description is given of the results of experimental investigations conducted by the central-ray method (STsL). It is shown that this is a reliable and economical way of probing gently sloping structural formations in the presence of reflecting reference horizons, such as the outer zone of the cis-Carpathian trough. In the case of

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ACC NR: AT6028969

the southwestern border of the Russian platform, where reference horizons are absent and angles of inclination are steep, a considerable divergence is observed between the data obtained by STsL, the reflected waves method, and the method of controlled directional reception. This discrepancy requires further compilation of data on the effectiveness of STsL. Orig. art. has: 4 figures.

SUB CODE: 08/ SUBM DATE: 30Apr65/

Card 2/2

YARISH, Yu.I.

Category : USSR/General Problems - Method and Technique of Investigation A-4

Abs Jour : Ref Zhur - Fizika, No 3, 1957, No 6603

Author : Yarish, Yu.I.
Title : Unidirectional Drift and Rotation of Pointers of Measuring Instruments, Occurring Upon Vibration.

Orig Pub : Priborostroyeniye, 1956, No 4, 15-24

Abstract : Investigation made with moving-coil instruments with horizontal shafts and with pivot bearings, unidirectional displacement (drift) of the pointer during vibrations is due to a stable asymmetry, caused by the joint action of the force of gravity, the electric force, and the elastic force of the hair springs, causing a rise in the stable static position of the moving system of the instrument by a certain angle ε (between the vertical and the line joining the axial lines of the pivot and of the bearing in the transverse cross section). The derivation

Card : 1/2

YARITSYN, S.S. (Leningrad, D-187, Liteynyy pr., d.15, kv.29)

Cavernous hemangioma of the left lobe of the liver. Kov.khir.arkh. no.6:89-90 N-D '59. (MIRA 13:4)

1. 1-ye khirurgicheskoye otdeleniye (zaveduyushchiy - chlen-korrespondent AMN SSSR prof. S.A. Kholdin) Instituta onkologii AMN SSSR. (LIVER--TUMORS)

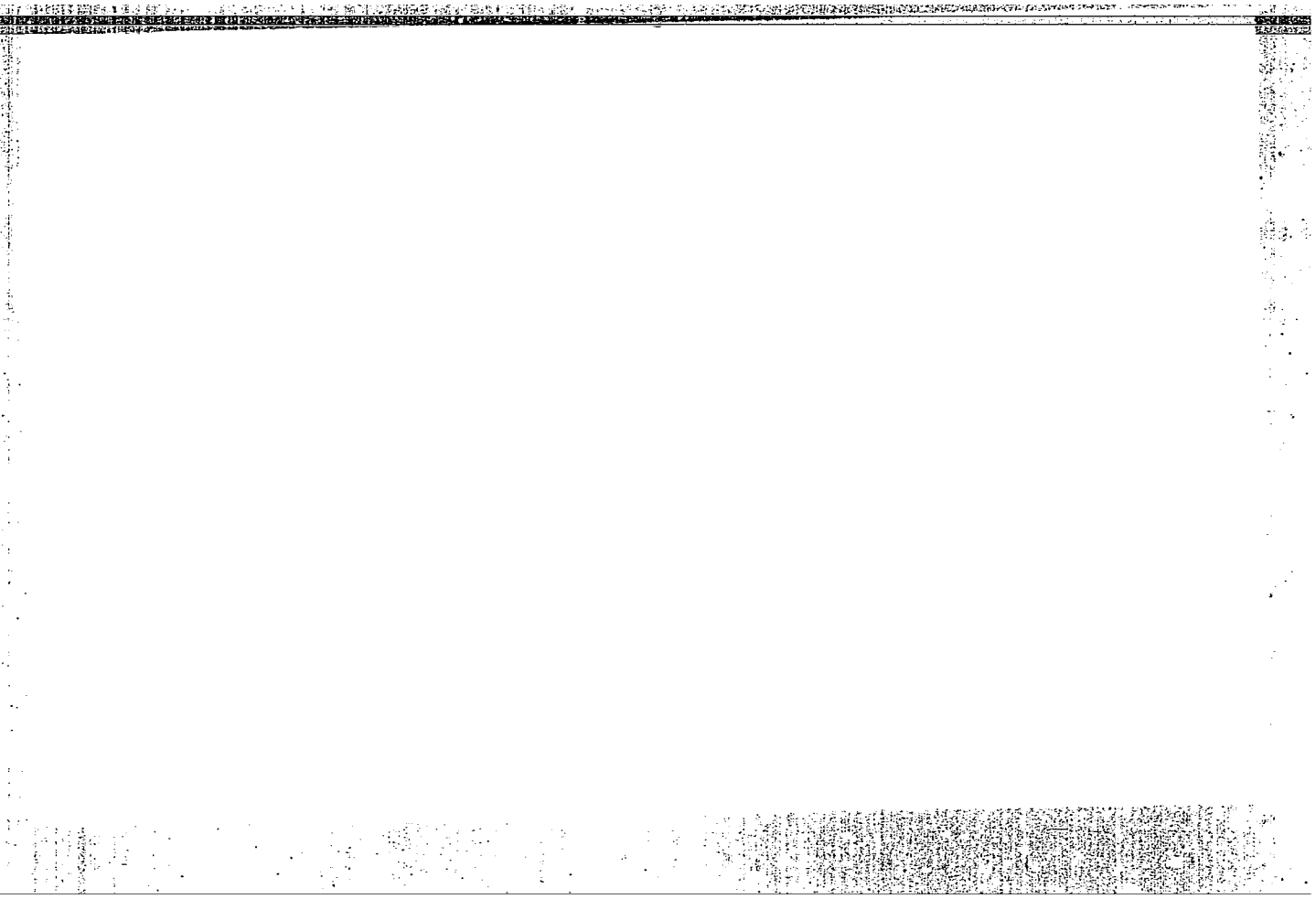
MEL'NIKOV, R.A.; YARITSYN, S.S.

Cancer of the skin of the perineum appearing after X-ray therapy for eczema. Vop.onk. 7 no.3:87-89 '61. (MIRA 14:5)
(ECZEMA) (PERINEUM—CANCER) (X RAYS—PHYSIOLOGICAL EFFECT)

YARITSYNA, I. A.

YARITSYNA, I. A. - "A study of low-intensity hard gamma radiations using the photoneutron effect". Leningrad, 1955. Committee for Standards, Measures, and Measuring Instruments, Council of Ministers USSR. All-Union Sci Res Inst of Metrology imeni D. I. Mendeleyev. (Dissertation for the Degree of Candidate of Technical Science.)

SO: Knizhnaya Letopis', No. 43, 22 October 1955. Moscow



APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962120018-1"

YARITSYNA, I.A.

SOV/112-59-3-5251

21(3)

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 3, p 135 (USSR)

AUTHOR: Aginiev, K. K., Balon, Z. P., Dzhelepov, B. S., Karavayev, F. M., Karamyan, A. S., Konstantinov, A. A., Ostroumkhova, G. P., Prokof'yev, P. P., Rusinova, S. A., Sumbayev, O. I., Khol'nov, Yu. A., Shestopalova, S. A., Yudin, M. F., and Yaritsyna, I. A.

TITLE: Metrology of Penetrating Radiations (Metrologiya pronikayushchikh izlucheniy)

PERIODICAL: V sb.: Atomn. energiya v mirnykh tselyakh. Gosenergoizdat, 1957, pp 145-181

ABSTRACT: Projects are described of the Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii (All-Union Scientific-Research Metrology Institute) imeni D. I. Mendeleyev on standardization of measures in the ionizing-radiation field, and on the construction of standard and reference outfits for reproducing the fundamental units in the whole range of energies and intensities of radiations of all types. The following outfits are described: (1) a standard reproducing

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the roentgen in the range of 40-300 Kev; (2) a reference outfit for measuring in roentgens of electromagnetic-radiation doses having the quantum energy of 300-1,500 Kev; (3) an outfit for measuring in roentgens the electromagnetic-radiation doses with quantum energy of 1-20 Kev with an error of 1%; (4) two standard outfits for measuring radium gamma-equivalents; (5) differential lead-ball gamma-calorimeters for measuring the activity of various preparations on the basis of their gamma radiation; (6) an isothermal calorimeter operating on the principle of liquid-nitrogen evaporation for measuring the activity of beta preparations; (7) a differential alpha-calorimeter for measuring the activity of radium preparations. An activity-measurement method by counting the number of particles emitted by a preparation is being developed in two directions: counting of particles in a definite solid angle and the same in the total solid angle by means of "4pi"-counters. -- The beta-particle counter with a definite angle permits measuring preparations with an activity of 10^{-8} - 10^{-5} curie with an error of 4-6%. Two alternate designs of "4pi"-

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Metrology of Penetrating Radiations

counters" are described. One of them permits measuring beta preparations with an activity of 10^{-10} - 5×10^{-5} curie with an error of 2-4%, and the second, 5×10^{-11} - 5×10^{-7} curie with an error of 1-3%. The outfits have been built for measuring neutron streams from 10^{8} down to a few tens of neutrons per sec. A gamma-spectrometer "Elektron" with an improved focusing has been built for investigation of gamma spectra in the energy range of 600-3,000 Kev. To conduct investigations in the range of 120-1,300 Kev, a 2-meter long crystal-diffraction gamma spectrometer of the Dumond spectrometer type has been built. Also, a magnetic spectrometer analyzing photoelectrons has been built for the range of 200-700 Kev. Measuring the half-life from a few hours to a few years is made by two methods: the method of successive measurements of gamma-equivalent preparations and the differential-chamber method. The results of half-life measurements for a number of isotopes are tabulated.

N. G. Z.

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YAGUTSYAN, I. A.

S/123/60/000/009/014/017
A004/A001

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 1960, No. 9, p. 250, # 45141

AUTHORS: Aglintsev, K.K., Karavayev, F.M., Karamyan, A.S., Konstantinov, I.A., [illegible], O.P., [illegible], Ye.A., Yulin, M.F., [illegible]

TITLE: Achievements and Development Prospects of the Metrology of Ionizing Radiation

PERIODICAL: Tr. Vses. n.-i. in-ta metrol., 1958, No. 33 (93), pp. 135-155

TEXT: The authors investigate the work which was carried out up to 1958 at the VNIIM, ensuring the unity of measures and devices in the field of ionizing measurements. Checking systems for the measurement of activity of radioactive preparations (the method of absolute counting of the number of charged particles and photons, emitted by the preparation, the ionizing chamber method and the calorimetric method) and also for the measurement of γ-equivalents are presented. The authors describe the methods of absolute measurements of neutron fluxes which can be put at the basis of the calibrating method. They enumerate

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S/123/60/000/009/014/017
A004/A001

Achievements and Development Prospects of the Metrology of Ionizing Radiation

the trends of further work in the field of metrology of ionizing radiation. There are 9 figures and 25 references.

M.V.S.

Translator's note: This is the full translation of the original Russian abstract.

√B

Dept. of Ionizing Radiation

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34284
S/589/61/000/055/004/006
D051/D113

21.6000

AUTHORS: Andreyev, Ye. P.; Rodionov, S.S.; Yaritsyna, I.A.

TITLE: Investigation of a flat slow neutron scintillator

SOURCE: USSR. Komitet standartov, mer i izmeritel'nykh priborov. Trudy institutov Komiteta, no. 55(115), Moscow, 1961. Issledovaniya v oblasti izmereniya ioniziruyushchikh izlucheniy, 66-68

TEXT: This article deals with investigations on a luminescent detector of slow neutrons of the T.V. Timofeyeva type (Ref. 1: Timofeyeva, T.V., Detektor medlennykh neytronov [Slow neutron detector], "Atomnaya energiya", No 8, 1957; Ref. 2: Timofeyeva, T.V., Khormushko, S.P., Ekrany dlya registratsii medlennykh neytronov [Screens for slow neutron recording], Izv. AN SSSR, ser. fiz., t. XXII, 1958, str. 14). The study was conducted in 1959 at VNIIM in order to determine the efficiency of this detector and also its sensitivity to γ-rays. A block diagram of the experimental installation is included. The experiments proved that at a dose rate of $5 \cdot 10^3$ μr.sec^{-1} the detector is practically insensitive to γ-rays. The efficiency of the

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Investigation of a flat slow neutron ...

detector, as regards thermal neutrons, was determined by the ratio of counted pulses to thermal neutrons per unit of time. The neutron flux was determined on the basis of the absolute activity of an indian foil placed directly on the detector, the activity being measured with a 4π-counter (Ref. 4: Konstantinov, A.A., Absolyutnyy schet β-chastits [Absolute counting of β-particles], Trudy VNIIM, vyp. 30 [90], 1957). The expression for the efficiency of the detector is $\varepsilon = \frac{N_o \cdot 100}{\Phi_T S}$ (N_o -number of counted pulses per minute found to be equal to 5624; S-area of photocathode = 9 cm^2; Φ_T-thermal neutron flux established at $1.3 \cdot 10^4$ neutrons $\cdot$ $min^{-1} \cdot cm^{-2}$).

Hence, $\varepsilon = \frac{5624 \cdot 100}{1.3 \cdot 10^4 \cdot 9} = 4.7\%$. The error was established at $\pm$ 0.3%.

There are 4 figures and 6 references: 4 Soviet and 2 non-Soviet-bloc. The two English-language references are: R. Koontz, M. Greenfield and A.Jarrett, NAA-SR, part II, 1955, p. 1137; M. Greenfield, R. Koontz and A. Jarrett, Nuclear Science and Engineering, v. 4, 1958, p. 563

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34284

S/589/61/000/055/004/006
D051/D113

Investigation of a flat slow neutron ...

ASSOCIATION: VNIIM

SUBMITTED: April 20, 1960

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34285
S/589/61/000/055/005/006
D037/D113

21,6000
AUTHOR: Yaritsyna, I. A.

TITLE: The sensitivity of the activation method in photoneutron measurements

SOURCE: USSR. Komitet standartov, mer i izmeritel'nykh priborov. Trudy institutov Komiteta, no. 55 (115), Moscow, 1961. Issledovaniya v oblasti izmereniya ioniziruyushchikh izlucheniy, 69-73

TEXT: To study low-intensity hard γ-rays, the author compares the activation of various elements and describes methods of (1) activating manganese in a potassium permanganate solution and (2) activating ethyl-iodide. Experiments conducted at VNIIM revealed that γ-rays with an intensity of not less than 10^{-4} quanta per decay can be studied using silver foils. It was also shown that manganese, rhodium, indium, gold, iodine, dysprosium, iridium and vanadium cannot be recommended for detecting hard gamma-rays of low intensity. (1) For activating manganese, the author used a 4% $KMnO_4$ solution, into which a Be or D_2O block with a γ-ray emitter was submerged. The irradiated solution was filtered through paper filters which were burned

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The sensitivity of the activation method ...

and the activity of the ashes measured by a β-counter under standard conditions. Due to the relatively long half-life of Mn^{56}, the possibility of measuring the activity over a long period, etc., this method permits studying sources with hard γ-lines with an intensity of up to 10^{-6} quanta per decay. By increasing the quantity of Be and D_2O and the solution surrounding the photoneutron source and by using a source with higher activity, hard γ-rays with an intensity of up to 10^{-7} quanta decay can be studied. The method of activating ethyl iodide is much the same as the first method, except that much more neutrons are captured by the iodine and the total activation cross-section in the thin layer is 4 times larger. The necessity of working with a large quantity of strongly volatile liquid and the need for the chemical separation of the iodine and preparation of AgJ are among the method's disadvantages. However, in principle this method may be used for detecting hard γ-rays with an intensity of up to $10^{-7} \div 10^{-8}$ quanta per decay. The experiments showed that the two described methods are among the most sensitive for detecting neutrons. There are 1 table, 2 figures and 9 references: 4 Soviet-bloc and 5 non-Soviet-bloc. The English-language references are: A. Wattenberg, Phys. Rev., v. 71, 1947, p 497; R.

Card 2/3

34285

S/589/61/000/055/005/006
The sensitivity of the activation method ... D037/D113

Fluharty, M. Deutch, Phys. Ref., v. 76, 1949, p 182; R. Wilson, Phys. Rev., v. 79, 1950, p 1004; E.Amaldi, E. Fermi, Phys. Rev., v. 50, 1936, p 899.

ASSOCIATION: VNIIM

SUBMITTED: April 20, 1960

Card 3/3

L 19374-63 EWT(m)/BDS AFFTC/ASD

ACCESSION NR: AR3006958 S/0058/63/000/008/A039/A039

SOURCE: RZh. Fizika, Abs. 8A294

52

AUTHOR: Yaritsy*na, I. A.

TITLE: Some types of fission chambers 19

CITED SOURCE: Tr. in-tov Kom-ta standartov, mer i izmerit. priborov pri Sov. Min. SSSR. vy*p. 69(129), 1962, 81-85

TOPIC TAGS: fission chamber , U-235, multilayer, helical

TRANSLATION: Multi-layer, helical, and plane-parallel fission chambers developed at the VNIIM (All-Union Scientific Institute of Metrology) are described. The most efficient is a helical chamber (0.2%) consisting of two concentric aluminum helices covered on both sides with uranium oxide. When U^{235} is used, the efficiency of this chamber can be increased by two more orders of magnitude. The heli-

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L 19374-63
ACCESSION NR: AR3006958

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cal chamber can be used to detect weak neutron fluxes in the presence of strong gamma radiation. To measure absolutely the number of neutrons accurate to 8--10%, the most suitable is a plane-parallel chamber, whose electrodes are coated with a layer of U^{235}. Threshold curves for the described chambers are presented. V. Fleysher.

DATE ACQ: 06Sep63 SUB CODE: PH ENCL: 00

Card 2/2

YARITSINA, I. A.

"Absolute determination of the number of neutrons emitted by the source."

report submitted for the 3rd Intl Measurement Conf & 6th Intl Instruments & Measurements Conf, Stockholm, 14-19 Sep 64.

YARITSINA, I. A.

"Absolute determination of the number of neutrons emitted by the source."

report submitted for Intl Fed of Automatic Control & of Information Processing Conf, 21-23 Sep 64.

KONSTANTINOV, A.A.; FOMINYKH, V.I.; YARITSYNA, I.A.

Absolute measurement of the yield of neutron sources by the manganese activation method. Atom energ. 16 no.3:253-255 Mr '64. (MIRA 17:3)

ANDREYEV, O.L.; KOCHIN, A.Ye.; STUKOV, G.M.; YARITSYNA, I.A.

Absolute measurement of the yield of a neutron source by the gold foil activation method. Atom energ. 16 no.3:255-256 Mr '64. (MIRA 17:3)

KARAMYAN, A.S. [deceased]; KUZNYEV, B.I.; KRESS, R.P.; SILIN, Yu.S.; STUKOV, G.M.; SHCHEBOLEV, V.T.; YARITSYNA, I.A.

Use of the method of associated particles in determining the absolute of neutrons emitted by the source. Atom energ. 16 no.3:252-253 Mr '64. (MIRA 17:3)

ACCESSION NR: AP4020335 S/0089/64/016/003/0253/0255

AUTHOR: Konstantinov, A. A.; Fomin*kh, V. I.; Yaritsy*na, I. A.

TITLE: Absolute measurement of neutron source yield by the manganese activation method

SOURCE: Atomnaya energiya, v. 16, no. 3, 1964, 253-255

TOPIC TAGS: neutron source yield, measurement, manganese activation method, Mn sup 56, thermal neutron, dipping counter calibration, neutron yield

ABSTRACT: The method of manganese activation for measuring absolute neutrons is used most widely in metrological institutions. This method is based on the absolute measurement of Mn^{56} activity, obtained under the influence of source neutrons placed in the center of a large tank filled with a solution of manganese sulfate. Since the thermal neutrons are absorbed by manganese, hydrogen and sulfur nuclei, the number of source emitted neutrons can be determined from the equation

$$Q = \frac{Q_{Mn}\sigma_{Mn} + Q_S\sigma_S + Q_H\sigma_H}{Q_{Mn}\sigma_{Mn}} Q_{Mn}, \quad (1)$$

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ACCESSION NR: AP4020335

where ϱ_{Mn}, ϱ_S, ϱ_H are the manganese, sulfur and hydrogen nuclei in 1 cc. solution; σ_{Mn}, σ_S, σ_H are corresponding cross sections of capture of thermal neutrons; Q_{Mn} is the complete manganese activity. Dipping counter calibration was established. Indeterminacy in the value of a given amount caused an error in absolute β-count which was ± 1%. Neutron yield was computed. Corrections in background, decay during measuring and finite irradiation time of the solution were introduced into the number of readings during measurements with the dipping counter. Orig. art. has: 2 formulas.

ASSOCIATION: None

SUBMITTED: 18Apr63 DATE ACQ: 31Mar64 ENCL: 00

SUB CODE: NP NO REF SOV: 004 OTHER: 010

Card 2/2

ACCESSION NR: AP4020336 S/0089/64/016/003/0255/0256

AUTHOR: Andreyev, O. L.; Kochin, A. Ye.; Stukov, G. M.; Yaritsyna, I. A.

TITLE: Absolute measurement of neutron source yield by the gold foil activation method

SOURCE: Atomnaya energiya, v. 16, no. 3, 1964, 255-256

TOPIC TAGS: neutron source yield, thermal neutron, gold foil activation method, resonance activity, Ra Be source

ABSTRACT: Thermal neutron distribution of a Ra-Be neutron source in a moderator (mostly distilled water) is measured using gold foils activation analysis. Gold foils are placed at several points and the absolute amount of β-activity of these foils is measured. Since thermal neutron distribution does not depend on the type of detector, the relation of specific activity of gold foil to the number of detector readings placed at the same distance from the neutron source, is constant for any distance. A complete yield of neutron source Q may be obtained from the ratio

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ACCESSION NR: AP4020336

$$Q = 4\pi \frac{\sigma_H n_H}{\sigma_{Au} n_{Au}} F \int_0^\infty I(r) r^2 dr,$$

where σ_H and σ_{Au} are the thermal neutron cross sections of capture by hydrogen and gold; n_H and n_{Au} are atom concentrations of hydrogen in water and of gold in foil; and F is the relation of specific activity of gold foil to the number of neutron detector readings at the same distance. The integral value is found be means of measuring I (r) at various distances from the source. In practice, the integration is by the graphic method. The formula is only true for detectors whose efficiency satisfied the 1/v law. The cross section for Au^{197} follows this law only up to an energy of 4.95 ev. (first resonance); therefore a portion of the resonance activity determined with the aid of a cadmium screen should be considered. In measuring neutron yield of Ra - Be-source one should consider correction in self-shielding of neutron flux in gold foil and perturbation of true distribution of neutrons in the moderator during calculation of coefficient F. This correction is (5 ± 1)% for circular foil with a 20 mm. diameter and a 0.02 mm. thickness. In computing coefficient F, a correction should be

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ACCESSION NR: AP4020336

introduced into resonance absorption of neutrons by gold. After computation the correction was (0.5 ± 0.1)%. A correction in thermal neutron absorption in the same source, computed by macroscopic cross section of source absorption is (0.7 ± 0.1)%. Based on the works of A. de Troyer et al (Bull. cl. sci. Acad. roy. Belgique, 40, 2, 150 (1954)) and K. Geiger and G. Whyte (Canad. J. Phys., 37, 256 (1959)) the correction in fast neutron absorption in oxygen is (2.2 ± 0.3)%. In addition, the determination error of spatial distribution area of neutrons is ± 1.3% and the determination error of the cross section for σ_{Au} is ± 0.3. For σ_{H} it is ± 0.6%. Error in absolute measurement of activity is 1%. The root mean square error of the method is ± 2.1%. Having taken these corrections into account, it was determined that neutron yield of Ra - Be of source Q is (3.22 ± 0.07) x 10^6 neutr./sec. Orig. art. has: 2 tables

ASSOCIATION: None

SUBMITTED: 18Apr63 DATE ACQ: 31Mar64 ENCL: 00

SUB CODE: NP NO REF SOV: 000 OTHER: 005

Card 3/3

FOMINYKH, V.I.; YARITSYNA, I.A.

Apparatus for comparison of neutron sources of identical spectral composition. Trudy inst. Kom. stand., mer i izm. prib. no.69:75-85 '62. (MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. Mendeleyeva.

YARITSYNA, I.A.

Some types of fission chambers. Trudy inst. Kom. stand., mer i izm. prib. no.69:81-85 '62. (MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. Mendeleyeva.

FOMINYKH, V.I.; YARITSYNA, I.A.

Actinium-beryllium emitters. Nov. nauch.-issl. rab. po metr. VNIIM no.2:46-49 '64. (MIRA 18:4)

ANDREYEV, O.L.; YARITSYNA, I.A.

Producing a calibrated thermal neutron flux. Nov. nauch.-issl. rab. po metr. VNIIM no.2:63-66 '64. (MIRA 18:4)

L 14681-66 EWT(m)/EPF(n)-2/EWA(h) DM
ACC NR: AP6008257 SOURCE CODE: UR/0089/65/019/002/0181/0183

AUTHOR: Andreyev, O. L.; Silin, Yu. S.; Stukov, G. M.; Fominykh, V. I.; Shchebolev, V. T.; Yaritsyna, I. A.

ORG: none

TITLE: International comparison of neutron sources

SOURCE: Atomnaya energiya, v. 19, no. 2, 1965, 181-183

TOPIC TAGS: neutron distribution, radioactive source, neutron, radium, beryllium, radiation counter

ABSTRACT: The relative measurements of the Canadian Ra-α-Be neutron source were carried out considering the neutron distribution in open geometry and using a long counter which could turn the source at any required angle. With the source axis of rotation coinciding with the cylinder axis, the asymmetry was 1% and with the source axis turned to the side of the surface it was 1.5%. The relative measurements for the source indicated 3.25 neutrons/sec. Orig. art. has: 2 figures and 1 table. [NA]

SUB CODE: 20, 18 / SUBM DATE: 13Oct64 / ORIG REF: 003 / OTH REF: 005

Card 1/1 BC UDC: 539.16.08:539.125.5

ANDREYEV, O.L.; SILIN, Yu.S.; STUKOV, G.M.; FOMINYKH, V.I.; SHCHEBOLEV, V.T.; YARITSYNA, I.A.

International comparisons of neutron sources. Atom. energ. 19 no.2:181-182 Ag '65. (MIRA 18:9)

KOLESOV, V.I., prof.; DEMIN, V.N., prof.; LEVIN, A.O.; SHAL'NEVA, T.S.; BOMASH, N.Yu., VINOGRADOV, A.G.; LEOSKO, V.A.; SIDORENKO, L.N.; YARITSYN, S.S.

Regional perfusion of chemotherapeutic substances in malignant tumors of the extremities. Vest.khir. 93 no.8:58-64 Ag '64. (MIRA 18:7)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. V.i. Kolesov) 1-go Leningradskogo meditsinskogo instituta imeni Pavlova.

YARIVITSIN, V.I.

BAUSIN, A.F.; SOKOLOV, A.A.; ANTONOV, V.Ya.; KURDYUMOV, S.V.; BEL'KEVICH, P.I.; SAVINYKH, A.I.; KARAKIN, F.F.; SOLOPOV, S.G.; YEFIMOV, V.S.; YARIVITSIN, V.I.; RABKIN, B.A.; BABARIN, A.F.; MATVEYEV, L.M.; FUNIKOV, S.A.; CHERNENKOV, D.P.; BULAYEVSKIY, N.V.; kandidat tekhnicheskikh nauk; SHINKARINK, K.K.; TSUPROV, S.A.; GINZBURG, L.N.; VASIL'YEV, Yu.K.

Scientific and technical conference on the work of the peat industry of the Ministry of Electric Power Stations. Torf.prom. 32 no.2:1-20 '55. (MLRA 8:5)

1. Zamestitel' ministra elektrostantsiy (for Bausin). 2. Zamestitel' direktora VNIITP (for Sokolov). 3. Zamestitel' direktora MTI (for Antonov. 4.Zamestitel' direktor "'krniimesttopprom"(for Kurdyumov). 5. Direktor Instituta torfa AN BSSR(for Bel'kevich). 6. Nachal'nik Glavenergozapchasti MES(for Savinykh). 7. Glavnyy inzhener Ivanovsko - go torfotresta (for Karakin). 8. Zamestitel' direktora MTI (for Solo pov) 9. Upravlyayushchiy Shaturskogo torfotresta (for.Yefimov). 10. Glavnyy mekhanik Invanosvkogo torfotresta (for Yarovitsin). 11. Glavnyy mekhanik Leningradskogo torfotresta (for Rabkin). 12. Glavnyy inzhener Ozeretsko-Neplyuyevskogo torfopredpriyatiya (for Babarin). 13. Glavnyy inzhener Gor'kovskogo torfotresta (for Matveyev). 14 Rukovoditel' laboratorii VNIITP (for Funikov). 15. Glavnyy inzhener tresta Lentorfostroy (for Chernenkov).

(Continued on next card)

ANDRIANOV, Ye.I., inzh.; YARIZOV, A.D., inzh.

Electric multimotor drive of the E-2005 excavator. Stroi. i dor. mashinostr. 4 no.11:13-15 N '59 (MIRA 13:3)
(Excavating machinery--Electric driving)

YARIZOV, A.D., inzh.

Investigation and ways to improve the electric drives on E-2005 excavators. Izv. vys. ucheb. zav.; gor. zhur. no.10:159-164 '60. (MIRA 13:11)

1. Moskovskiy gornyy institut imeni I.V. Stalina. Rekomendovana kafedroy gornoy elektrotekhniki Moskovskogo gornogo instituta.
(Excavating machinery--Electric driving)

YARIZOV, A.D., kand. tekhn. nauk

Using an electronic modeling machine for investigating transient processes in an electromechanical drive system of a percussion drill. Izv. vys. ucheb. zav.; gor. zhur. no.8:114-118 '64
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1. Moskovskiy institut radioelektroniki i gornoy elektromekhaniki. Rekomendovana sovetom laboratorii elektronnogo modelirovaniya.

YARKEVICH, Lyubov' Grigor'yevna

[Practices in the organization of occupational therapy in hospitals for the treatment of psychoneuroses] Opyt organizatsii trudovoi terapii v psikhonevrologicheskoi bol'nitse. Moskva, Medgiz, 1958. 43 p. (MIRA 12:6)
(OCCUPATIONAL THERAPY)

YARKHIN, Ya.I., inzh.

Effect of the heating temperature on the mechanical properties of rod structures from 35GS steel. Elek. sta. 35 no.8:32-33 Ag '64. (MIRA 17:12)

YARKHIN, Ya.I., inzh.; RIZAYEV, R.G., inzh.; KASATKIN, A.O., inzh.; GAPOYAN, P.M., inzh.

Testing high-strength steel-reinforced concrete plates. Prom. stroi. 42 no.1:22-25 '65. (MIRA 18:3)

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Soviet legislation on juvenile labor. Sots. trud 8 no.6:139-145 Je '63. (MIRA 16:9)

(Youth—Employment)